

Contactless Magnetostrictive Position Sensor

MST

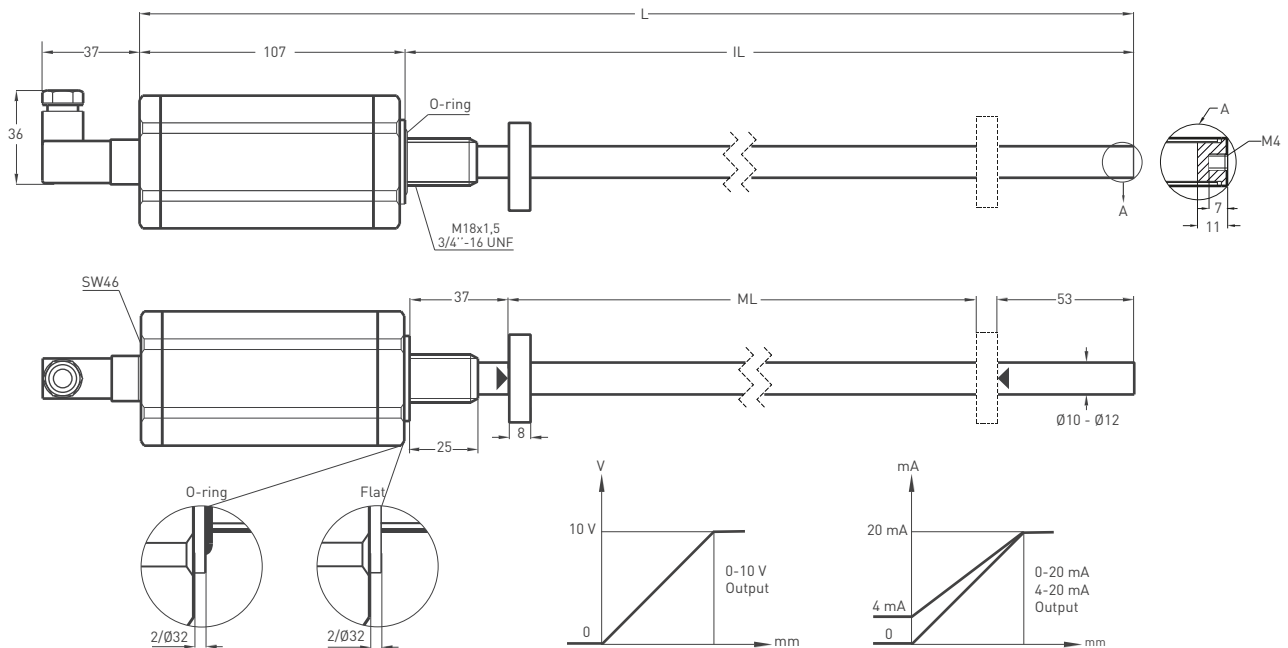
- Measuring range 50 - 5000 mm
- 16 bit resolution
- Optional mechanical installation
- Single or double outputs



Technical specifications

Measurement stroke	50 to 5000 mm
Resolution	16 bit DAC output
Repeatability	±0,005% (full scale)
Output	0-10V, 10-0V, 0-10V/10-0V, 10-0V/0-10V, 0-20mA, 20-0mA, 0-20mA/20-0mA, 20-0mA/0-20mA, 4-20mA, 20-4mA, 4-20mA/20-4mA, 20-4mA/4-20mA
Power supply	24 V DC (22 - 26 V)
Displacement speed	< 10 m/s
Vibration	EN 60068-2-6 , 5-200 Hz 200 m/s ² (20g) , 2h 30min each axis (x,y,z)
Shock	EN 60068-2-2:2007 500 m/s ² (50g) , 11ms. (x,y,z axis)
Update time	0-600mm, 0,5ms 601-1500mm, 1ms 1501-3000mm, 2ms 3001-5000mm, 3ms
Max. consumption	50 mA - 90 mA (depending on stroke length)
Max. output noise	< 5 mVpp
Max. output value	10.5 Volt
Linearity	±0,05% full scale (min. 100 µm)
Reverse polarity protection	Yes, Up to (-30 VDC)
Overvoltage protection	Yes, Up to (30 VDC)
Pressure rating	< 500 bar
Mounting	M18 x 1.5 or 3/4"-16 UNF O-ring or Flat
Housing material	Profile: Anodized aluminium Tube: Stainless steel Caps: Stainless steel
Protection level	IP 65 - EN 60529
Operating temperature	-10°C ... +70°C
Storage temperature	-30°C ... +90°C

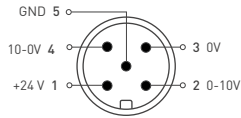
Mechanical specifications



MST (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	1000	1100	1200	1300	1400	1500	1750	2000	2250	2500	3000	4000	5000
ML (Measuring Length)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	1000	1100	1200	1300	1400	1500	1750	2000	2250	2500	3000	4000	5000
IL (Installation Length)	148	198	248	298	348	398	448	498	548	598	648	698	748	798	848	898	948	998	1098	1198	1298	1398	1498	1598	1848	2098	2348	2686	3186	4186	5186
L (Total Length)	255	305	355	405	455	505	555	605	655	705	755	805	855	905	955	1005	1055	1105	1205	1305	1405	1505	1605	1705	1955	2205	2455	2793	3293	4293	5293
Dead Zone Calculation	37/53 mm																														
	130/53 mm 150/53 mm																														

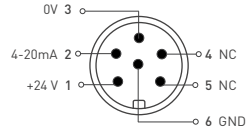
Round Connector

5 pin Connector configuration



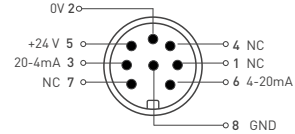
CN5 M12 (A) / M16 (B)
5 pin

6 pin Connector configuration

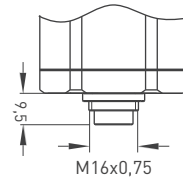
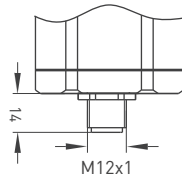


CN6 M12 (A) / M16 (B)
6 pin

8 pin Connector configuration

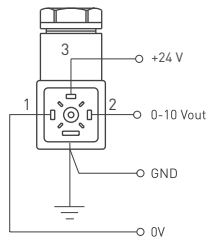


CN8 M12 (A) / M16 (B)
8 pin



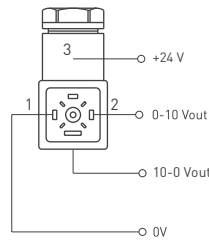
Hydraulic Type Connector

CH2



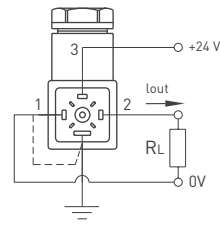
0-10V / 10-0V Output

CH2



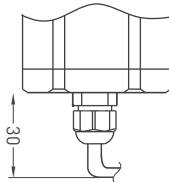
0-10V, 10-0V Output

CH2



0-20mA / 4-20mA Output

Cable



Voltage Output

+V : Brown
0V : Blue
0V sense : Black
Output 1 : White (0-10V)
Output 2 : Orange (10-0V)
Earth : Shield

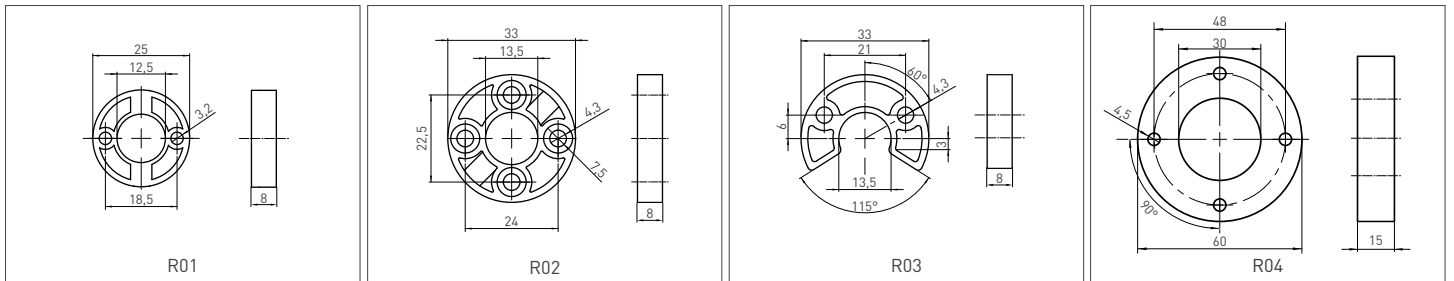
Current Output

+V : Brown
0V : Blue
0V sense : Black
Output 1 : White (4-20mA)
Output 2 : Orange (20-4mA)
Earth : Shield

Cable Length

1M : 1meter (standard)
(Other cable lengths available)

Cursor



Ordering Procedure

Model	Measuring Range	Rot & Thread	Sealing Surface	Accuracy	Cursor	Output	Connector / Cable	Dead Zone (mm)
MST	900	E12	S	A	1R02	V10	CH2	37/53
MST	50 ... 5000 mm	E10: Ø10, M18x1,5 E12: Ø12, M18x1,5 U10: Ø10, 3/4"-16 UNF U12: Ø12, 3/4"-16 UNF	S: O-ring F: Flat	A: 16 bit B: 12 bit	1R01: 25 mm 1R02: 33 mm 1R03: 33 mm 1R04: 60 mm 1R01: 1 cursor 2R01: 2 cursors	V10: 0-10 V V01: 10-0 V V11: 0-10 V/10-0V V12: 10-0 / 0-10 I04 : 20-4 mA I02 : 20-0 mA I40 : 4-20 mA I41 : 4-20 mA /20-4mA I42 : 20-4 mA /4-20mA I20 : 0-20 mA I21 : 0-20 mA / 20-0mA I22 : 20-0 mA / 0-20 mA	CH2: Hydraulic type (small) CN5A: M12 CN5B: M16 CN6A: M12 CN6B: M16 CN8A: M12 CN8B: M16 1M: 1meter 2M5: 2,5 meters	≤ 2000 mm MST: 37/53 47/53 57/53 67/53 77/53 > 2000-3000 mm MST: 130/53 > 3000-5000 mm MST: 150/53